

Serial No.: 10/248,967

Confirmation No.: 4437

Applicant: BODIN, Jan-Olof *et al.*

Atty. Ref.: 07589.117.PCUS00

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A liquid fuel rocket engine member (10) comprising: a load bearing wall structure (11, 14) comprising a plurality of cooling channels (11) for handling a coolant flow, wherein the load bearing wall structure (11, 14) comprises a curved wall (14), and wherein a wall of each of said cooling channels is attached to said curved wall; and each of the cooling channels (11) having a flow guiding surface (15, 16, 17, 19) extending at an angle to the cooling channel axis ~~for~~ and thereby providing the axial coolant flow with an added radial directional flow component.
2. (Original) The liquid fuel rocket engine member as recited in claim 1, further comprising: the flow guiding surface (15) being incorporated into the channel wall (18).
3. (Original) The liquid fuel rocket engine member as recited in claim 2, further comprising: the flow guiding surface comprising a plurality of grooves in the channel wall (18).
4. (Original) The liquid fuel rocket engine member as recited in claim 2, further comprising: the flow guiding surface (15) comprising a plurality of ribs protruding (15) from the channel wall (18).
5. (Original) The liquid fuel rocket engine member as recited in claim 1, further comprising: the flow guiding surface (16, 17, 19) comprising a separate structure inside the cooling channel (11).
6. (Original) The liquid fuel rocket engine member as recited in claim 5, further comprising: the structure comprising a helical spiral (19).
7. (Original) The liquid fuel rocket engine member as recited in claim 5, further comprising: the structure having a threaded screw (16, 17).

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8. (Currently Amended) A method for manufacturing a liquid fuel rocket engine member (10) having a load bearing wall structure (11, 14) comprising a plurality of cooling channels (11) for handling a coolant flow, said method comprising:

shaping a plurality of sheet metal surface-surfaces to provide [a]flow guiding surfaces (15) by surface (15); ~~folding the plurality of sheet metal surfaces~~ into cooling channels (11); and

forming said wall structure (14) by attaching at least said folded plurality of sheet metals metal surfaces by attaching said folded sheet metals to a wall (14) of an engine member (10) and thereby forming said wall structure.

9. (Currently Amended) The method as recited in claim 8, ~~further comprising:~~ wherein said folding of shaping the plurality of sheet metal surface-surfaces is performed by stamping-grooves into the surface.

10. (Currently Amended) The method as recited in claim 8, further comprising: shaping, by stamping, the plurality of sheet metal surfaces surface by stamping to form to have protruding ribs (15) on the surface.